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CODE OF PRACTICE FOR MAINTENANCE OF BOTTOM ROLLERS FOR DRAFTING SYSTEMS

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CODE OF PRACTICE FOR
MAINTENANCE OF BOTTOM ROLLERS
FOR DRAFTING SYSTEMS

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Indian Standard
**CODE OF PRACTICE FOR
MAINTENANCE OF BOTTOM ROLLERS
FOR DRAFTING SYSTEMS**

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 10 July 1978, after the draft finalized by the Spinning Machinery (Cotton System) Sectional Committee had been approved by the Textile Division Council.

0.2 Higher speed of bottom roller with heavier loading through the top arm is resorted to, to attain higher production. As the rollers and other components of the drafting system would be subjected to increased stress and strain, they require proper maintenance. The maintenance procedure varies from mill to mill and as such an attempt has been made to prescribe certain norms which if followed would enhance the life of rollers and ensure better performance of drafting system.

1. SCOPE

1.1 This standard covers detailed procedure for preventive maintenance of bottom rollers for drafting systems.

2. NOMENCLATURE

2.1 For the purpose of this standard, the nomenclature as used in IS : 2510-1976* shall be followed.

3. CLEANING

3.1 Rollers with plain bearings should preferably be cleaned once in 150 hours.

3.1.1 In order to clean the roller necks and roller stand bearings, every fourth staff length of the rollers should be tied with a strong rope in a zig-zag manner so that the rollers do not come off the stand.

*Specification for bottom rollers for drafting systems (third revision).

3.1.2 The rollers should be lifted to the minimum extent required with gentle pressure so as to free the roller necks from roller stand bearings. Alternatively rollers may be taken off the frame with the help of the gang and kept on a suitable stand. Utmost care should be taken to synchronize the movements of the gang personnel.

3.1.3 Clean the roller necks and the roller stand bearings with a piece of cloth.

3.2 In case of rollers with needle bearings, thread and fluff should be picked up from the sides of the bearings.

3.3 Dirt from the flutes should be removed with the help of a brass wire brush preferably once in 300 hours.

4. LUBRICATION

4.1 A small quantity of suitable lubricant oil should be applied on the plain bearings of bottom rollers preferably once in 24 hours.

4.2 Anti-friction bearing of bottom rollers should be lubricated within two months with general purpose ball bearing grease.

NOTE — As far as possible, the lubricants recommended by the manufacturers should be used.

5. MAINTENANCE

5.0 When the frame is opened for cleaning, the following should also be checked.

5.1 Lateral movement of the rollers which may be due to loose coupling should be checked.

5.2 The eccentricity of the rollers should be checked and in case the eccentricity is beyond the tolerance limit of 0.06 to 0.10 mm (*see IS : 2510-1976**) it should be corrected either on the frame or after taking off the roller from the frame. The eccentricity should be checked against the fluted portion of the roller.

NOTE — Due to constant pressure on the rollers, there is a tendency on the part of the rollers to lose concentricity.

5.3 In case of the roller with plain bearings, gently tap the roller near the roller stand by fist to check the wear and tear of the bearing and the neck. Replace bearing or rectify height of the bearing if necessary. Sintered metal or Oculon (nylon) bearings are recommended to minimize wear and tear.

5.3.1 Needle bearing should also be inspected carefully to see whether it has worn out. In other words, it should be in serviceable condition.

*Specification for bottom rollers for drafting systems (*third revision*).

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